

### **REMARKS**

This responds to the Office Action mailed on April 5, 2004.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-20 are now pending in this application.

#### **Double Patenting Rejections**

##### **Claims 1-5, 7-13 and 16-18**

Claims 1-5, 7-13, and 16-18 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 6,626,099.

Applicant does not admit that the claims are obvious in view of Patent No. 6,626,099. However, a Terminal Disclaimer in compliance with 37 CFR 1.321(b)(iv) is enclosed herewith to obviate this rejection.

##### **Claims 6, 14, 15, 19 and 20**

Claims 6, 14, 15, 19, and 20 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 6,626,099 in view of Dalal et al. (US Patent 5,922,496).

The Office Action states that claims 1-31 of U.S. Patent No. 6,626,099 teach all that is claimed except for the reflowing and in-circuit testing of the printed solder paste. The Office Action further states that Dalal teaches a method of printing solder bumps using a screen printing technology to form integrated circuits, the conventionality of reflowing the printed solder bumps and then subjecting the integrated circuits to electrical testing to eliminate undesired detaching of the solder bumps from other components.

Dalal discusses a material deposition contact mask in which apertures formed therein have a larger dimension in lower openings in a bottom side of the mask contacting the substrate than in constricted openings located near the top side of the mask. Dalal further discusses an optional reflowing step. The placement of knife edge 38 near the top of apertures 32, and the conical shape of apertures 32, which grow larger with increasing proximity to the surface of

substrate 12, result in a lowered incidence of undesired gouging or detaching of features when mask 30 is removed from substrate 12. (col. 6, lines 29-35). Applicant can find no mention in Dalal of screen printing technology to form integrated circuits or of integrated circuits subjected to electrical testing to eliminate undesired detaching of the solder bumps from other components.

Applicant does not admit that the claims are obvious in view of Patent No. 6,626,099 in view of Dalal. However, the Terminal Disclaimer in compliance with 37 CFR 1.321(b)(iv) noted above, is enclosed to obviate this rejection.

Allowable Subject Matter

Claims 1-20 were indicated to be allowable if the obviousness-type double patenting rejections set forth in the Office Action were overcome.

Applicant's submission of a Terminal Disclaimer in compliance with 37 CFR 1.321(b)(iv) obviates the obviousness-type double patenting rejections and the claims are therefore now allowable.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney Barbara Clark at 515-233-3865, or the below-signed attorney at 612-349-9592, to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date June 7, 2004

By Ann M. McCrackin  
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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 7 day of June, 2004.

KACIA LEE  
Name

Kacia Lee  
Signature